Lab

1. Write a Python program that prints "Hello, World!".= ok
2. Set up Python on your local machine and write a program to display your name.=ok
3. Write a Python program that demonstrates the correct use of indentation, comments, and variables following PEP 8 guidelines.=ok
4. Write a Python program to demonstrate the creation of variables and different data types. =ok

Practical Example 1: How does the Python code structure work?

Practical Example 2: How to create variables in Python?

1. Practical Example 3: How to take user input using the input() function.=ok
2. Practical Example 4: How to check the type of a variable dynamically using type().=ok
3. Practical Example 5: Write a Python program to find greater and less than a number using if\_else.=ok
4. Practical Example 6: Write a Python program to check if a number is prime using if\_else.=ok
5. Practical Example 7: Write a Python program to calculate grades based on percentage using if-else ladder.
6. Practical Example 8: Write a Python program to check if a person is eligible to donate blood using a nested if.
7. Practical Example 1: Write a Python program to print each fruit in a list using a simple for loop. List1 = ['apple', 'banana', 'mango']
8. Practical Example 2: Write a Python program to find the length of each string in List1.
9. Practical Example 3: Write a Python program to find a specific string in the list using a simple for loop and if condition.
10. Practical Example 4: Print this pattern using nested for loop: markdown Copy code

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1. Write a generator function that generates the first 10 even numbers.
2. Write a Python program that uses a custom iterator to iterate over a list of integers.
3. Practical Example: 1) Write a Python program to print "Hello" using a string.
4. Practical Example: 2) Write a Python program to allocate a string to a variable and print it.
5. Practical Example: 3) Write a Python program to print a string using triple quotes.
6. Practical Example: 4) Write a Python program to access the first character of a string using index value.
7. Practical Example: 5) Write a Python program to access the string from the second position onwards using slicing.
8. Practical Example: 6) Write a Python program to access a string up to the fifth character.
9. Practical Example: 7) Write a Python program to print the substring between index values 1 and 4.
10. Practical Example: 8) Write a Python program to print a string from the last character.
11. Practical Example: 9) Write a Python program to print every alternate character from the string starting from index 1.
12. Practical Example: 1) Write a Python program to skip 'banana' in a list using the continue statement. List1 = ['apple', 'banana', 'mango']
13. Practical Example: 2) Write a Python program to stop the loop once 'banana' is found using the break statement.
14. Write a Python program to demonstrate string slicing.
15. Write a Python program that manipulates and prints strings using various string methods.
16. Write a Python program to apply the map() function to square a list of numbers.
17. Write a Python program that uses reduce() to find the product of a list of numbers.
18. Write a Python program that filters out even numbers using the filter() function.
19. **Create a mini-project where students combine conditional statements, loops, and functions to create a basic Python application, such as a simple calculator or a grade management system.**